



Examining the Mega-city-Region hypothesis: evidence from the Paris city-region / Bassin parisien

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Examining the Mega-city-Region hypothesis: evidence from the Paris city-region / *Bassin parisien*

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Abstract: Four dimensions of the concept of polycentricity (morphological, functional, relational and political polycentricity) are discussed in this paper based on the study of the Paris city-region / *Bassin parisien* system. The concentration of 'abstract production' workers in the Paris agglomeration and the fairly concentrated geography of firms' information flows (as measured by their phone calls) prevent the formation of an enlarged polycentric Mega-City-Region. Three explanations are proposed based on the strategies of real estate developers, information-intensive firms and policy-makers. In conclusion, I try to evaluate in the Paris city-region and French context whether a limited polycentricity at *Bassin parisien* level is prejudicial at different policy relevant scales.

Key Words: Polycentricity, enlarged city-region, Advanced Producer Services, Abstract production, firms' phone calls, Paris/Ile-de-France/Bassin parisien

Examen de l'hypothèse relative à la méga ville-région à partir de l'exemple du Bassin parisien

Ludovic Halbert

Résumé : cet article traite de quatre dimensions du concept de polycentricité (morphologique, fonctionnelle, relationnelle et politique) en

s'appuyant sur l'étude relative au système ville-région de Paris/Bassin parisien. La concentration de travailleurs de production abstraite dans l'agglomération parisienne et la concentration relativement importante de flux d'information d'entreprise (mesurée par les appels téléphoniques) empêchent la formation d'une méga ville-région polycentrique élargie. Trois explications sont proposées qui sont basées sur les stratégies des promoteurs immobiliers, des entreprises basées sur l'information et des décideurs politiques. En conclusion, j'essaie d'évaluer la ville-région de Paris et le contexte français afin de savoir si une polycentricité limitée au niveau du Bassin parisien est préjudiciable aux différentes échelles politiques pertinentes.

Mots-clés : polycentricité, ville-région élargie, services de producteurs de pointe, production abstraite, appels téléphoniques des entreprises, Paris/Île-de-France/Bassin parisien

JEL : L2, L8, R1, R3

Untersuchung der Hypothese der Megastadtregion: Belege aus der Stadtregion Paris bzw. dem *Bassin parisien*

Ludovic Halbert

Abstract:

In diesem Beitrag werden anhand einer Studie des *Bassin-parisien*-Systems bzw. der Stadtregion von Paris vier Dimensionen der Konzepts der Polyzentrität (morphologische, funktionale, relationale und politische Polyzentrität) erörtert. Die Konzentration von Arbeitern im Bereich der 'abstrakten Produktion' im Ballungsraum Paris und die recht konzentrierte Geografie der Informationsströme von Firmen (gemessen anhand ihrer Telefonate) verhindern die Bildung einer erweiterten, polyzentrischen Megastadtregion. Ausgehend von den Strategien von

Immobilienfirmen, informationsintensiven Firmen und politischen Entscheidungsträgern werden drei mögliche Erklärungen erörtert. Abschließend versuche ich im Kontext von der Pariser Stadtregion und von Frankreich zu bewerten, ob sich eine begrenzte Polyzentrität auf der Ebene des *Bassin parisien* in verschiedenen, politisch relevanten Maßstäben schädlich auswirken kann.

Key Words:

Polyzentrität

Erweiterte Stadtregion

Wirtschaftsdienstleistungen

Abstrakte Produktion

Firmentelefonate

Paris/Ile-de-France/Bassin parisien

JEL: L2, L8, R1, R3

Análisis de la hipótesis de las regiones mega-ciudad: ejemplo de la región ciudad de París/*Bassin parisien*

Ludovic Halbert

Abstract:

En este artículo se abordan cuatro dimensiones del concepto de policentralidad (morfológica, funcional, relacional y política) a partir de un estudio de la ciudad región de París y el sistema *Bassin parisien*. La concentración de los trabajadores en el sector de la 'producción abstracta' en la aglomeración de París y la geografía bastante concentrada de los flujos de información de las empresas (medidas según las llamadas telefónicas) impiden la creación de una región mega-ciudad policéntrica más amplia. Se proponen tres explicaciones en función de las estrategias de promotores inmobiliarios, las empresas con alto nivel de información y los responsables políticos. Para terminar, intento evaluar si una policentralidad a nivel del *Bassin parisien* en la ciudad-región de París y en un contexto francés es perjudicial en diferentes escalas relevantes a la política.

Key Words:

Policentralidad

Región ciudad ampliada

Servicios avanzados de productores

Producción abstracta

Llamadas telefónicas de empresas

Paris/Ile-de-France/Bassin parisien

JEL: L2, L8, R1, R3

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The Paris city-region seems at odds with the EU spatial planning agenda which is setting the enhancement of polycentricity at all levels, from regional to European as a key priority (ESDP, 1999). First, being one of the two leading European global cities, it might be depicted as one of the city-regions responsible for the concentration of central economic functions within the Pentagone region. Thus, after having faced the French government's attempts to reduce its weight within the national territory for the last forty years, the Paris city-region might have to deal with adverse European policies favouring so-called 'peripheries' according to territorial cohesion goals. Second, in spite of powerful deconcentration dynamics at regional level, doubts are raised regarding the Paris city-region's ability to become a truly polycentric city-region capable of enhancing the development of its large regional hinterland – known as the *Bassin parisien*. In this context, I aim to further develop the concept of polycentricity by confronting it to the various dimensions of the enlarged Paris city-region (what Polynet project calls the Mega-City-Region - MCR). This article comes at the intersection of two debates on the spatial organisation of metropolitan economic systems.

Third wave and the metropolis. The first one refers to the relationship between cities and their surrounding environment. During the 1990s, USA scholars described the decentralisation of business services in terms of a 'third wave' of employment deconcentration which followed the two former

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3 waves of relocation both of inhabitants/services to households and of
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5 manufacturing activities to the peripheries of cities (CERVERO, 1989).
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7 Traditional CBDs were believed to be inefficient in a 'post-industrial'
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9 economy and were challenged by either large suburban areas as in
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11 Californian metropolises (GORDON, RICHARDSON, 1996) or by 'secondary
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13 economic centres', taking the forms of strips along highways or of
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15 spatially limited poles of office spaces (CERVERO, 1989). This second
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17 hypothesis, the 'concentrated deconcentration' (HALL, PAIN, 2006), was
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19 developed in Garreau's famous '*edge cities*' work (GARREAU, 1991) which
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21 depicts the triumph of a new 'American frontier' no longer related to the
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23 conquest of the West but to the conquest of suburban peripheries on the
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25 margins of would-be inefficient urban centres.
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33 This reversed development (Soja uses the term 'inside out', SOJA, 1996)
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35 has been first contested by some Canadian geographers. In spite of strong
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37 deconcentration processes, or maybe thanks to them - Polèse and Coffey
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39 (POLESE, COFFEY, 1996) have rejected the CBD decline hypothesis by
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41 opposing them the vitality of central spaces: according to their
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43 observations in Montréal and Toronto, the least productive functions of the
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45 business services economy are forced to relocate in more remote places of
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47 the city-region because they are unable to face the financial and
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49 commercial competition for central spaces¹.
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58 *Metropolis and globalisation.* A second and partly related debate
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60 developed at the same time is central to understanding the spatial

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reorganisations of large city-regions. It questions the relationship between economic globalisation and metropolisation. In spite of recurrent texts on the supposed 'death of distance' (CAIRNCROSS, 1997) or on the 'flattening' of the world (FRIEDMAN, 2005), more or less closely following McLuhan's 'global village' theory (MCLUHAN, 1964), empirical studies have reduced the credit given to the thesis of a space-less global economy. On the contrary, a whole set of academic works link (re-)metropolisation dynamics and the advent of a global economy (SASSEN, 1991, VELTZ, 1996, SCOTT, 2001). In this context, actors of the 'corporate complex' (head quarters and their many associated advanced producer services, Coffey, Polèse, 1996) are given the most prominent roles (Sassen, 1991). It is not our purpose in this paper to discuss what seems to us like a fairly restricted view of economic globalisation processes and actors which, because it focuses on the 'knowledge and information economy', tends to neglect other forms of globalisation – such as the globalisation from 'below' involving 'global' low-skill low-paid workers probably as important in number as the knowledge economy workers themselvesⁱⁱ. In economically 'advanced' metropolitan regions – that is to say in city-regions that count among the 'spaces of flows' of a globalising economy (CASTELLS, 1996), the debate on the role and localisation of business services activities has partly joined the one on the 'third wave' of employment deconcentration – probably reflecting the growing confusion between the intra- and inter-metropolitan scales resulting both from the

deconcentration of inhabitants at an enlarged regional level and from the locational strategies of global firms.

At the intersection of these two scientific debates, this paper aims to discuss the MCR hypothesis which states that a network of neighbouring but physically separated cities is becoming more integrated as Advanced Producer Services are deconcentrating from one or more central agglomerations (HALL, PAIN, 2006). According to this hypothesis, 'concentrated deconcentration' dynamics rely on second rank cities that have reached a critical size, especially in terms of skilled labour force, to allow relocations emanating from the 'First Cities'. There are already polycentric-type deconcentration models proposed in the literature, at least at intra-metropolitan level (BOITEUX-ORAIN, HURIOT, 2002 for a survey). Case studies are now needed to measure the reality, forms and factors of such spatial trends as I propose to do in this paper with the Paris city-region and the *Bassin parisien*.

First of all, what is the 'polycentric Mega-City-Region' (HALL, PAIN, 2006)? One understands that it refers to an enlarged metropolitan region encompassing a number of coalescent urban areas which perimeters are always more overlapping as commuting distances increase and exchanges between urban centres develop thanks to transport infrastructures. The notion of polycentrism is more problematic because of its many definitions in the literature (KLOOSTERMAN, MUSTERD, 2001, PARR, 2004). Recent studies in Europe (ESPON 1.1.1 project; Interreg IIIb Polynet programme)

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bring in fresh insights that I try to summarise in a four dimensions classification of polycentricity, reflecting distinct realities and methods of analyses.

Morphological, functional, relational and political polycentricity.

In this paper I define **morphological** polycentricity as the ability of an urban structure to i) possess homogeneously spread cities in a given territory and ii) to follow a constant relation between the rank of these cities and their size according to Zipf's rank-size 'law' (1949). In other words, a region is all the more morphologically polycentric that no city is so big as to dominate others and that cities are as evenly spread over the territory as possible. By contrast, **functional polycentricity** refers to two other characteristics of urban systems. In a first sense, it describes the spatial repartition of *functions* – economic functions in this paper – between the different cities or city-regions of a given territory. This definition raises a first difficulty : should one consider an urban structure functionally polycentric if i) some cities/city-regions share the *same* function, for instance a specialisation in advanced producer services as it is proposed in Polynet's polycentric Mega-City-Region hypothesis, or if ii) cities/city-regions are specialised in different and potentially complementary functions (the port city in logistics, a university city in the research function, a 'First city' in control functions and Advanced Producer Services, a town near a forest in the tourism function for instance). A scientific evaluation of an urban system thus requires to clearly states

which one of these two forms of functional polycentricity is observed, if any. To get things more complicated, in spite of the existence of simple statistical indicators to measure the intensity of a city-region's functional specialisation (the Location Quotient or the Isard Index to name but two), the issue regarding the qualification of the specialisation remains difficult for there might be strong functional differentiations within a city-region itself: the traditional city-centre might be specialised in cultural and tourism activities, the CBD and its modern extensions in business services, secondary economic poles like shopping centres in services to households/individuals, the airport in the logistic function, etc. Assessing the functional, or any type of specialisation to a city-region, is a very strong approximation of its complex internal differentiations. In this regard, Advanced Producer Services' specialisation is very often much more a characteristic of a city-region's CBD than, let's say, of its suburban peripheries. A second and more dynamic definition may be proposed to functional polycentricity even though to limit confusion I hereby propose to name it differently. Following the growing interest for the 'spaces of flows' (CASTELLS, 1996), functional polycentricity can be described as a form of **relational polycentricity**. I insist here on the importance of exchanges between the different spaces of a given regional system: polycentricity would thus describe intense flows of people, ideas, capital and/or goods during a normal working day. This even distribution does not prevent some forms of hierarchy due to the differentiated weights of each particular space within the city-region (a classical gravitational model

would suggest the intensity of such flows to be proportional to the different spaces' demographic size and inversely proportional to their distance). In this definition, a polycentric Mega-City-Region would be made of several cities having day-to-day exchanges (of information, workers, capital...) large enough in volume and spatially relatively 'well-balanced'. A fourth description can be proposed when applying the concept of polycentricity to spatial planning and economic development strategies rather than to landscapes or economic functions. I understand **political polycentricity** as a high degree of awareness to the existence of a 'Mega-City-Region', as the existence of common institutions and/or partnerships and as the political will to develop shared projects between policy-makers at national, regional and local levels dealing with all or parts of the Mega-City-Region's issues. In this sense, political polycentricity might be an evaluation of a regional system's ability to go with (or to go past) its institutional fragmentation.

Paris, the Ile-de-France region and the Bassin parisien. Ile-de-France, the administrative region of Paris, is interesting to test the emergence of a global and polycentric Mega-City-Region in regard to these four dimensions, for at least three reasons. First, the Paris functional urban area (understood as the agglomeration and the commuters catchment's area, which limits broadly coincide with the Ile-de-France regional boundaries) offers a favourable ground for the development of a Mega-City-Region according to the MCR hypothesis : it is highly affected by

globalisation processes being with London one of the two prominent global metropolises in Europe; it concentrates in an unchallenged proportion a large number of advanced producer services both at French and international levels (HALBERT, 2005). Second, the natural geological basin that surrounds the Paris city-region, known as the *Bassin parisien*, is large, disposes of a series of medium cities of reasonable size and constitutes a demographic reserve almost equivalent to the Ile-de-France region's own population. Last, on a more practical level, it is possible to collect data at a detailed spatial level (municipalities) that allow to partly analysing the four dimensions of polycentrism, including in a quite unique way *relational* polycentricity as indicated by phone calls flows emitted by Ile-de-France's firms.

AN URBAN STRUCTURE UNDER THE INFLUENCE OF PARIS

The spatial organisation of the *Bassin parisien* is dominated by the Paris agglomeration and its surrounding semi-rural peripheries (the whole of this constituting the Paris Urban Area or the Paris Functional Urban Area as explained above). This utterly monocentric pattern has not always been so. During the 11th and 12th century Rouen was the second biggest city in France and could compare to some degree to Paris. However, at least since the development of the French State which, both under the Monarchy and the various Republics promoted a concentration of

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3 economic, political and cultural activities in the capital city, the weight of
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5 the Paris urban area has not been counterbalanced by any other
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7 agglomerations or system of secondary cities, not only in the *Bassin*
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9 *parisien* but also to some extent at the national level. In spite of major
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11 policies developed during the 1960s and following decades as we will see
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13 later, no secondary metropolitan region has ever managed to significantly
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15 gain over Paris FUA in terms of demographic and economic weight. Lyon,
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17 the second rank French city, is still eight times smaller than Paris, the
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19 ratio having not changed throughout the entire century. However, the rest
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21 of the urban structure in the *Bassin parisien* (considered here not in the
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23 wide geological basin perimeter but as the 11 *départements* around the
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25 Ile-de-France region, thus including most major cities within a 150 kms
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27 radius around Paris) follows a relatively polycentric pattern. Cities are
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29 located more or less at even distances from each other and constitute a
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31 quite homogenous but still hierarchical urban grid superimposed to the
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33 traditional rural landscapes, broadly following a Christaller-type
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35 organisation. A series of middle size cities circle Paris linked by what is
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37 now known as the *Route des cathédrales* (Orléans, Chartres, Rouen,
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39 Amiens, Reims) organising the *Bassin parisien's* demographic pattern.
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53 **Figure 1: FUAs' rank-size curve in the *Bassin parisien***

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58 This inherited geography is only slightly modified by recent
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60 demographic changes. Growth is registered in many FUAs, including the

Paris functional urban area, even though the *Bassin parisien* as a whole evolves at a slower pace than many parts of the national territory (the South and the West of France for example). This demographic development (+0.5 %/year in average in the last 30 years) benefits more to the FUAs located closer to the Ile-de-France region and, partly for this reason, more to northern and western FUAs, the eastern city of Reims being an exception. However, these general trends are in fact much more complex because of internal spatial reorganisations occurring within most large and middle size cities: inhabitants, and in a more limited proportion jobs, leave, or at least grow slower in the city-centre and sometimes in the agglomeration, while more distant suburbs and semi-rural municipalities register strong positive variation rates. The Paris FUA internal dynamics have unique consequences at a larger scale: deconcentration sweeps over rural interstitial spaces and reaches secondary cities of the *Bassin parisien*, thus contributing to what looks like the consolidation of an enlarged metropolitan region (see BERGER et al., 2006 on spatial spill-over effects and their limitations).

Figure 2: The demography in the Bassin parisien (FUA level): in 1999 and 1982-99 variations

It is largely because of internal deconcentration processes that an enlarged Parisian city-regionⁱⁱⁱ - or Mega-City-Region under Polynet's terminology - seems to consolidate around the Paris functional urban area

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within a set of ten to twenty medium and small surrounding cities that send a noticeable proportion of daily commuters to the Paris FUA and receive more and more francilian week-enders visiting their country house. A functional integration is at work within this enlarged area, - at least in terms of the *residential* function - , which fuels daily or weekly exchanges of people with all the social and economic consequences one can think of. Considerable financial transfers are observed from the (Paris FUA) place of work where wealth is generated to the place of living where it is given back in local taxes and spent in the local economy, thus fuelling local job creations (DAVEZIES, 2004). Some non-households-related activities may follow the same trend as firms move some of their functions closer to new sub-regional markets and to labour pools in secondary cities. During the 1960s and following decades of the fordist era, the *Bassin parisien* has become the manufacturing region where Parisian plants relocated thanks to incentives from the central government. In the 1990s, some warehouses and call centres have followed. Thus MCR deconcentration affects not only manufacturing and services to households but also some business services (logistics, a limited number of back-offices activities) (THIARD, 2001).

BUSINESS SERVICES, ADVANCED PRODUCER SERVICES AND FUNCTIONAL SPECIALISATION IN THE PARIS MEGA-CITY-REGION

Yet, business services are still predominantly concentrated in the Paris FUA, and more specifically in the central part of its agglomeration: an economic core that I described elsewhere as the *central metropolitan triangle* links the three business hot spots of Paris' western districts, La Défense and Boulogne-Billancourt/Issy-les-Moulineaux (HALBERT, 2004a). It is fast developing all around the Parisian circular road (the *Périphérique*), in the neighbouring Southern, Eastern and Northern municipalities like the former industrial bastion of Saint-Denis which now hosts numerous movie studios, banking and insuring glass-type offices and the *Stade de France*.

Yet current dynamics are more complex^{iv}. If relative deconcentration from Paris municipality to closely located western municipalities has been important between the two censuses of 1982 and 1999, around two thirds of the growth goes to other remaining départements, not only in the Ile-de-France administrative region but also in some surrounding *Bassin parisien* FUAs.

Table 1: Demographic and employment deconcentration in the Paris city-region/*Bassin parisien*

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This is true both at intra-metropolitan level (from the central part of the Paris FUA to its fringes) but also at the Mega-City-Region level (from Paris FUA to secondary FUAs). The cartography of business services jobs variation at municipal level shows a growth following three logics: i) a proximity effect (the closer a FUA to Paris' FUA, the strongest the growth), ii) a western preference (Business services grow faster in western FUAs than in the eastern part of the *Bassin parisien*) and iii) a hierarchical diffusion (from the higher ranks of the urban hierarchy to the lower levels). In this sense, the 'third wave' of business services deconcentration is at work both within and between FUAs and tends to favour some form of functional polycentricity, even though in a very limited way as I will demonstrate in the rest of this paper.

Figure 3: Business services variation in the Paris/*Bassin Parisien* region at municipal level (1982-99)

The definition of Business services as a statistical category is both too encompassing and too restrictive to grasp Advanced Producer Services and, maybe in a wider definition, what Reich calls the 'symbol manipulators' (1991) whom I consider in this paper central actors in the spatial and economic transformations of global city-regions. As a reminder, the business services sector ranges from Ernst & Young top accountants to Dentressangle's truck drivers, from Axa insurance company clerical staff to BCG international market analysts, from a trader

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3 in one of Société Générale's floors to a low-skilled low-paid and often
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5 immigrant cleaning worker for a local facility management firm. This
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7 sector-based approach thus includes many not so 'advanced' jobs – in
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9 terms of control power, skills, (some forms of) knowledge and, needless
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11 to mention, purchasing power. Meantime, it excludes many workers that
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13 are symbol manipulators but who work in firms that are registered in
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15 industrial sectors. According to the French classification, a lawyer
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17 employed by a car-maker is classified as part of the car industry sector
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19 whereas a contracting lawyer hired by the same car-maker to do an
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21 equivalent job is listed as a business services professional (Legal and
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23 Accounting in the French statistical nomenclature). Yet they both do the
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25 same task; they both play the same role in the productive system, the
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27 same function for the business community, i.e. the justice or legal
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29 function in this example. Because of sectoral data's limitations, I propose
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31 in this part of the paper to focus on a functional approach – subsequently
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33 allowing us to study *functional* polycentricity – based on the *Professions et*
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35 *Catégories SocioProfessionnelles* classification of the French National
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37 Census Bureau (INSEE). The Insee collects every 8 to 9 years the main
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39 activity of all workers in France at the place of work according to a
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41 typology of 455 jobs (teacher, researcher, manager, cleaner, blue collar
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43 factory worker, truck driver, etc.) and this, regardless the economic sector
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45 of their employer. Based on this category and revisiting empirical works
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47 undertaken in the 1990s by the Paris-1 University *STRATES* laboratory
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49 (BECKOUCHE, DAMETTE, 1993), I propose 14 major functions to describe
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a given productive system of which 5 are of particular interest in this paper. These functions (R&D, Management, Marketing, Art & Culture and Legal functions), when restricted to people working in the business services and industrial sectors of a given productive system^v, is a reasonably effective proxy of Advanced Producer Services and other 'symbol manipulators' of the business world – workers that from now on I will call *Abstract Production* workers because according to the economic base theory they are involved on so-called 'productive' activities (hence the 'Production' term) and, more specifically on handling information and knowledge rather than material goods (hence the 'Abstract' term). As low-skill jobs are believed not to be strategic actors of global city-regions in the Polynet approach, I concentrate only on the so-called 'upper category' of workers ('*Executives and Superior Intellectual Professions*' according to Insee's classification) and which I call *High-level Abstract Production workers*. By crossing sectoral, functional and social data, we manage to give a relatively efficient approximation of the highly skilled knowledge workers of the Paris Mega-City-Region^{vi}, which should enable us to study functional polycentricism.

Figure 4: High-level Abstract Production workers: a sectoral, functional and socio-professional definition

The geography of *high-level Abstract production* jobs is spatially more selective than the ones of employment in general and of business services in particular. Not only does the Paris FUA concentrate these functions well above what could be expected based on its sole weight in terms of inhabitants or jobs but also does this concentration remains unchallenged between 1982 and 1999.

Table 2: Location quotient in Business Services, Abstraction Production and High-level Abstract production workers in the Paris/Bassin parisien MCR

The Paris FUA growth rate is higher than in most surrounding FUAs. Thus, if there is a relative deconcentration process, it occurs only at intra-metropolitan level, within the Paris FUA, not at the *Bassin parisien* level. But even at this intra-regional scale, it is a much more spatially limited process compared to other indicators (inhabitants, employment and business services deconcentration). It is restricted to i) the central metropolitan triangle and ii) to a limited set of secondary economic centres, i.e. some municipalities in some New Towns (Cergy, Noisy-le-Grand, Guyancourt) and along some corridors, especially in the South-Western technopolitan quadrant. In other words, if business services deconcentration – that results from job losses in Parisian districts and high growth rates both in more peripheral Ile-de-France municipalities *and* in the *Bassin parisien* FUAs – is one of the engines of the changes of the

geography of employment over the last thirty years, the trend is utterly different for Abstract Production-related functions which remained strongly concentrated.

Figure 5: High-level Abstract Production workers: a dynamic geography in the Paris/Bassin parisien MCR

Thus the functional polycentrism described by the MCR hypothesis as the development of knowledge and information related jobs in secondary FUAs is not confirmed. Results suggest on the contrary a reinforcement of their concentration within the Paris FUA, and more specifically in its triangle-shaped central economic core and in the neighbouring municipalities, following what I call a 'peri-central deconcentration' trend. Does it mean that functional polycentrism is irrelevant in grasping the transformation of the Parisian Mega-City-Region? Yes, if this is understood as equivalent to a more balanced location of Abstract Production functions both in the Paris FUA and in the secondary FUAs. No, if one considers functional polycentrism as a regional division of a given productive system's functions. Following other works on intra-regional division of labour under the fordist production era (DAMETTE, SCHEIBLING, 1995), I demonstrate elsewhere that the *Bassin parisien*'s urban system shows a clear functional *division* of labour: Paris FUA is specialised in Abstract Production functions (R&D, management, marketing, culture and the arts); second rank cities in public services and some basic production activities (manufacturing,

logistics); small cities in basic services to population and some production activities (partly linked to the local agricultural economy), etc. If this is not sufficient to qualify a fully polycentric economic geography because it is still utterly hierarchical due to the Ile-de-France region's weight, this hints towards the existence of some *complementarities* between the different urban areas of the Paris/*Bassin Parisien* urban system. Functional specialisation is therefore more efficient a term to describe current changes, much more than the functionally polycentric Mega-City-Region concept defined as a potentially equal specialisation of primary and secondary cities in Advanced Producer Services.

INFORMATION FLOWS AND THE HIERARCHICAL INTRA-METROPOLITAN POLYCENTRISM IN THE PARIS FUA

What employment data can reveal is the location of activities within a given regional economy. What it does not is to show how the regional productive system works in its day-to-day functioning. To understand urban *systems* – and not only urban structures – one has to observe the *relational* geography which can be apprehended not so much in terms of flows of commuters going to and coming back from work, but *via* exchanges happening during a normal working day. As the information and knowledge economy develops, a geography of information flows

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3 within and between FUAs becomes urgent (CASTELLS, 1996). However,
4 data are lacking. Authors, like Taylor (TAYLOR, 2003) have proposed
5 indirect indicators to grasp *potential* intra-firms' flows and often at inter-
6 metropolitan rather than intra-regional levels.
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13 Phone calls exchanged *between firms* are one way to approaching
14 more directly the geography of information flows. Thanks to a research
15 partnership with the national operator France Télécom, I have been able
16 to create a database collecting at municipal level all phone calls emanating
17 from firms located in the Ile-de-France region to i) other firms in the
18 region and ii) to all types of respondents (both firms and individuals) in
19 the rest of the world (at *départementale* level in France, at country level
20 elsewhere). The data collection that went for six weeks in March and April
21 2003 was based on a survey method which rate varied accordingly to
22 traffic intensity. France Télécom had at the time of the data collection the
23 lion's share in the market of firms' phone calls (over three quarter) which
24 makes this dataset relatively efficient to grasp voice information
25 exchanges via telecommunications. They are limits to this dataset. First,
26 exchanges outside the Ile-de-France region are incompletely informed: we
27 do not have phone calls exchanged between FUAs of the *Bassin parisien*,
28 but only exchanges between Paris municipalities and the surrounding
29 administrative *départements*. Second, the use of this data presupposes
30 that phone calls are considered as efficient proxies of information
31 exchanges in an economic system. One should bear in mind at all times
32 that it is one among many other ways of exchanging information even
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though empirical surveys have testified its use as a crucial one in business relationships (HALBERT, 2004b). Last, the influence of distance on increasing prices is to be taken into account although empirical surveys tend to confirm that costs have a fairly small impact on the geography of information flows at both global and regional levels (HALBERT, 2004b).

Yet, the results bring insights on how the regional productive system works in its day-to-day exchanges, and why *relational* polycentrism is of very restricted intensity at Mega-City-Region level in the Paris/*Bassin parisien* case. *Bassin parisien* départements accounted for 4.2 % of all phone calls emitted by Ile-de-France's firms during the survey period. Compared to the number of workers, it is more than could be expected (emission index^{vii} of 1.37 against the French average at 1.0). At the *département* level, an East-West imbalance appears clearly within the *Bassin Parisien*: Oise valley cities, Chartres, Rouen and Orléans *départements* account for almost two thirds of the total exchanges from the Ile-de-France to the *Bassin parisien*.

However, these day-to-day interactions between the Paris region and its neighbouring *départements* are quite limited. First because a large share of telecommunication flows bypasses the *Bassin parisien* cities due to strong exchanges between the Paris Region and other areas in France or abroad. The administrative regions of Rhône-Alpes and PACA – that is to say Lyon, Grenoble, Marseille and Nice city-regions - receives for example more phone calls than the entire *Bassin parisien*. At international level,

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the Paris/Ile-de-France firms call Africa as much as the *Bassin parisien* while the Oise *département* receives fewer phone calls than Germany.

Second, exchanges are polarised within the Paris FUA, and especially within its agglomeration. Two thirds of all phone calls remain *within* the Ile-de-France region. Moreover, the pattern in this case is one a very hierarchical polycentrism. The economic core, made here of the western Paris districts and of La Défense municipalities, is information-intensive and plays the role of the global gateway. The rest of the metropolitan centre and the south-western quadrant is more intensely specialised in exchanges at national level. Last, the rest of the Ile-de-France territories have a local profile (inner suburbs looking inward, outer suburbs looking outward to the *Bassin parisien*). In conclusion, the intensity of centripetal information flows within the Paris FUA dominates over the polycentric pattern. Such a concentration of information flows within the Paris agglomeration prevents further relational polycentricity with surrounding FUAs of the *Bassin parisien*. Therefore, one does not see evidence of a polycentric Mega-City-Region functioning.

Figure 6: Phone calls flows from Ile-de-France firms to *Bassin parisien départements*

Table 3: Phone calls exchanges emanating from Ile-de-France firms in volume

THE LIMITS TO MCR DECONCENTRATION

In this last part of the paper, I propose three explanations to explain the still relatively concentrated economic geography observed within the Paris agglomeration and which I describe above as the main factors for the very limited economic deconcentration of abstract production jobs at the enlarged Paris/*Bassin parisien* region.

First, even though our understanding of their locational strategy still lacks a deeper analysis, real estate actors (promoters *and* investors) tend to play a growing role in the geography of offices, and indirectly on the locations of abstract production activities (MALEZIEUX, 1999, CROUZET, 2003). It is observed that investors are reluctant to develop real estate offices in the *Bassin parisien*'s secondary cities where the existing office market is small and assets are more difficult to sell. As most investors now apply financial management techniques that require liquid markets in which buying and selling can be done quickly, they prefer to concentrate their investments on larger markets either in more important provincial metropolises (like Lyon) or in the Paris FUA itself. Over the last twenty years, around 90% of all offices developed in the *Bassin parisien* where thus created in the Ile-de-France region (Diziain, Halbert, 2006).

Moreover, to balance risk and profits, most investors prefer to follow the same locational patterns and therefore develop large office districts, in already well established parts of the city (where profit but also risk are reduced) or in promising places often closed to the central area (for instance in industrial districts adjacent to CBDs) or in already important secondary economic centres. In this context, the Paris agglomeration, whether in the new towns located on its outskirts or more likely during the last ten years in peri-central municipalities, has been favoured against more remote second rank cities of the *Bassin parisien*.

Second, advanced producer services professionals tend to follow a concentrated locational pattern. Around 40 interviews achieved in the enlarged Paris region perimeter during the Polynet research have shown that because of the increasing volume of information flows circulating thanks to ICTs, the need for face-to-face contact is higher. Emails and video-conferencing are not sufficient to exchange strategic and often tacit knowledge via formal meetings or thanks to more informal exchanges (over lunch, with friends, etc.). This empirically confirms more theoretical proposals highlighting the importance of extra-economic exchanges that ensures today's economic efficiency (VELTZ, 1996, GRAHAM, MARVIN, 1996). The central Parisian core is the first location where these exchanges occur. It constitutes a dense and dynamic '*city milieu*' where information circulates and is interpreted. One can go as far as to describe the central metropolitan triangle of Paris, La Défense and Boulogne / Issy-les Moulineaux as one example of the neo-marshallian information

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3 districts described by Graham and Marvin (1996) in which the "buzz" is
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5 essential (STORPER, VENABLES, 2004).
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11 Third, the lack of more polycentric development between Paris city-
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13 region and other secondary cities of the *Bassin parisien* is linked to spatial
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15 planning policies. Since the 1960's at least, two competing strategies are
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17 observed in the national spatial planning strategy (WELLHOFF, 1995,
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19 HALL, 1995, HALBERT, 2006a). First, the central State has developed a
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21 strong reluctance to supporting demographic and economic development
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23 in the Paris region because of what was perceived since the 1940s like the
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25 excessive weight of Paris in the French territory. In his famous book,
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27 Gravier summarised the national geography in a short and impressive
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29 title: 'Paris and the French desert' (GRAVIER, 1947). In this context, a
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31 policy to support 'equilibrium metropolises' has been favoured by the
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33 central government in the 1960s at national level which because of the
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35 attraction of Paris very soon ended in supporting secondary cities in the
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37 *Bassin parisien*. In the 1990s, this planning strategy was still a priority:
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39 the central spatial planning agency (the Datar, created in the 1960s by de
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41 Gaulle and which has been one of the most vigorous promoter of
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43 decentralisation policies) and the different administrative regions of the
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45 *Bassin parisien* agreed to favour demographic and economic development
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47 around the Ile-de-France region to prevent more concentration in the
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49 Paris FUA. Among the different scenarios proposed at that time, two were
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51 opposed: the first was one of strong integration between Paris and its
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3 surrounding secondary cities (evolving towards what would be a Mega-
4 city-Region under Polynet's terminology); the second opposed the Paris
5 agglomeration to emergent polycentric metropolises in the peripheries of
6 the *Bassin parisien*, the latter scenario being favoured by most regions
7 and the Datar. This led to the development of a strategic cooperation
8 between the national government and the 8 administrative regions (1994-
9 99 *Contrat de Plan Interrégional du Bassin Parisien*), probably the only
10 formal attempt to develop a Mega-City-Region scale governance (what in
11 the outset of this paper I refer to as 'political polycentricity'). Since then, no
12 more trans-regional - that is to say at MCR level - strategies and
13 partnerships have been proposed, probably because of the successfully
14 competing spatial planning strategies developed within the Ile-de-France
15 region at the same time.

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17 Indeed, the development of spatial planning in the *Bassin parisien* has
18 been challenged by a parallel policy emanating from the central
19 government in order to support - in a quite schizophrenic way - the Paris
20 city-region. As early as de Gaulle's government, the '*grandeur de la*
21 *France*' policy required that regardless the numerous attempts to reduce
22 the weight of Paris in the national territory, it was equally important to
23 keep the French economic engine of that time roaring. Investments in
24 infrastructures proposed in the three successive Regional Master Plans
25 (1965, 1976 and 1994 *Schémas directeurs*) aimed to reinforce the
26 international attractiveness and the economic efficiency of the first French
27 FUA. From La Défense business district to the *Villes Nouvelles* policy, from

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3 Roissy airport to the RER network (*regional express railway system*) and
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6 expressways, all these investments proved to be crucial in the
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8 development of the agglomeration as we know it today. In this context,
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10 the leading principle was the enhancement of polycentricity, *but* within a
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12 very small radius. Even though inspired by the British New Towns, the Ile-
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14 de-France *villes nouvelles* were located no further than 30 kms away from
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16 Notre-Dame cathedral while English *New Towns* are often found at
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18 100 kms from St-Paul. This is crucial in understanding the limited
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20 deconcentration processes happening in the *Bassin parisien* as firms have
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22 found secondary cities in the *vicinity* of the Paris central area without
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24 having to move further outside the Ile-de-France region. The success of
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26 regional planning infrastructures might be the most important reason for
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28 the lack of a Mega-City-Region in the Paris case study (HALBERT, 2006a).
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30 The 40 years long opposition between these two policies (limitation of
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32 Paris development vs. reinforcement of its attractiveness) has prevented
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34 the development of a MCR level governance. The current focus given to
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36 the regional level in terms of spatial planning strategies will probably
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38 reduce any potential developments of a MCR level political polycentricity,
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40 both in terms of a common strategy and of formal/informal partnerships.
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42 The current revision of the Ile-de-France master plan seems to eagerly
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44 forget the surrounding cities and *départements* which however are
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46 functionally linked to the Paris city-region, not so much in terms of
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48 Advanced Producer Services but in more basic production and services
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50 activities (HALBERT, 2006b).
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ELEMENTS OF CONCLUSION:

This paper highlights some limitations of the global polycentric Mega-City-Region formation hypothesis when applied to the Paris city-region/*Bassin parisien*. If a network of secondary cities exist around the dominant Paris FUA, thus slightly counter-balancing a predominantly monocentric morphological pattern, specialisation in Advanced Producer Services and in Abstract Production functions is still restricted to Paris FUA's central area and to some secondary economic centres *within* the Paris agglomeration. Business services deconcentration follows a hierarchical functional division of labour between Paris FUA and the *Bassin parisien*, the latter concentrating basic production and 'basic' services to firms and households rather than highly skilled 'global' workers. In this context, relational polycentricity measured by firms phone calls exchanges is strictly polarised by the Parisian FUA, excluding in so the advent of a fully polycentric network of cities at Mega-City-Region level.

The intensity of global functions' polarisation by the Paris FUA, and more specifically within its agglomeration, is the result of at least three processes: i) the concentration of real estate developments in large central poles to reduce investors' risks, especially since the mid-1990s, ii) the need for many knowledge and information economy-related firms to share spatial proximity in order to favour face-to-face contact, iii) the spatial planning policies which supported the development of well-connected urban centres within the Paris agglomeration and thus limited

the opportunities of relocation in further secondary cities at *Bassin parisien* level unlike in the London/South-East England case.

Last, maybe because of the spatially limited deconcentration process, political polycentrism at MCR level, that is to say the ability to develop a strategy and partnerships at the enlarged metropolitan scale, has been unsuccessful but maybe for a very short and controversial period of time in the mid-1990s.

In conclusion, one should ask whether the lack of polycentricity in the Paris city-region / *Bassin parisien* is a positive or a negative outcome according to the four main policy objectives prevalent in contemporary urban and regional planning (i.e. economic efficiency, social equity, environmental sustainability, territorial cohesion) and this at the various spatial levels (from local to European).

First at Ile-de-France scale, in spite of recent difficulties in terms of economic development and job creations, Paris city-region is still one of the two leading global cities in the European system. It still contributes importantly to the national wealth, and remains its major economic engine. Moreover its relatively compact geography might prove to be a key asset in satisfying firms that are always more eager to access to high-skill workers in a global and knowledge-demanding economy. However, because of i) important public and social transfers at national level, ii) a decreasing perceived quality of life leading to a negative migration balance, iii) increasing long distance commuters leaving outside the Ile-

de-France region and iv) a higher proportion of high-paid workers that tend to spend their money outside the region (week-ends, holidays, business tourism), a part of the wealth created in the Paris city-region is not reinvested locally, thus strongly limiting job creation (DAVEZIES, 2004). In other words, if agglomeration and urban economies favour an extremely high productivity for firms, the economic outcomes are counterbalanced by external and more societal trends that limit the overall economic success of the region measured for instance in revenues per inhabitants or in job creations. Second, globalisation trends seem to sharpen social inequities in the Paris Ile-de-France region as it does in many other cities, especially as land prices are peaking in the central part of the agglomeration, forcing out lower income households which in consequences see their potential employment basin reduced (ORFEUIL, WENGLANSKY, 2004). Last, the efficiency of the public transport system and the limited extent of the agglomeration is seen by many as a valuable asset to limit unsustainable development. If the *Villes nouvelles* have not managed to polarise all deconcentration processes and have soon be swept by a wave of urban sprawl, density remains a key element to reduce car dependency and to limit long distance commuting. In this context, it seems that for economic, social and environmental reasons, concentration should prove more beneficial to the overall Paris city-region than a further deconcentrated polycentricity at Mega-City-Region scale, if only the redistribution of wealth within the region was to be improved.

Yet, this does not mean that functional and/or political integration or complementarities should not be pursued to address issues that link the Paris City-region and the rest of the *Bassin parisien*. Spill-overs from the Paris city-region can affect positively secondary cities that benefit from new revenues spent locally, develop local service economies and host deconcentrated functions (basic manufacturing, logistics and services). Some cities have been more successful than others like Orléans or Chartres which have found sectoral and functional specialisations that complement the economic profile of the Paris city-region. Their strategies to strengthen niche specialisations may seem unacceptably risky if too narrowly defined in one sub-segment of a particular sector but can be very effective if correctly positioned in complementarity with the Ile-de-France market where customers and investors are numerous. There are no evidences in this context of an insurmountable 'shadow effect' where Paris would be the sole city to get all the benefits of globalisation processes.

At national level, contrasting with the now old policy aiming at limiting the growth of the Paris city-region – and which has still numerous supporters – studies demonstrate that the Ile-de-France success benefits probably more to the rest of the national territory because of the important redistribution of wealth (DAVEZIES, 2005).

Last, at European level, Paris city-region, and more largely the different First Cities of the Pentagon are the key gateways that link EU to the

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globalising economy and probably should not be downplayed by EU policy-makers (HALL, PAIN, 2006).

The Paris case study not only shows that in spite of deconcentration trends affecting business services (third wave hypothesis), polycentric MCR formation process is not such a universal a trend among European cities. It also demonstrates that less polycentric development can be at least as efficient according to the different objectives followed by policy-makers. But most of all, it underlines the importance of *specific histories*, both regional and national, in the shaping of city-regions, no matter how intensely integrated in the globalisation of the economy they are.

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Table 1:

Ring	Inhabitants		Employment		Business Services	
	Total in 1999	%/yr (1982- 99)	Total in 1999	%/yr (1982- 99)	Total in 1999	%/yr (1982- 99)
Paris	2,125,250	-0.17	1,600,820	-0.61	666,440	-0.26
Inner départements	4,038,570	0.2	1,771,920	0.58	729,730	4.20
Outer départements	4,688,350	1.16	1,659,890	1.95	517,530	5.48
Surrounding Départements	3,943,990	0.44	2,160,480	0.31	407,370	2.07
Total	14,796,160	0.48	7,193,110	0.44	2,321,070	2.19

Table 2

Ring	Business Services		Abstract Production		High-skill Abst. Prod	
	1982	1999	1982	1999	1982	1999
Paris	155	129	140	119	152	132
Inner suburbs	104	128	115	129	129	152
Outer suburbs	85	97	87	99	86	95
Surrounding Cities	58	58	61	63	41	38

Table 3

Main destination	Départements	Volumes in million of seconds
Bassin Parisien		1,861
	Oise	360
	Seine-	
	Maritime	330
	Loiret	267
	Eure-et-Loir	185
	Eure-et-Loir	169
	Marne	142
	Aisne	116
	Somme	112
	Yonne	107
	Aube	73
Rest of France		8,819
Ile-de-France		28,700
International		4,931
Total		44,311

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Figure 1

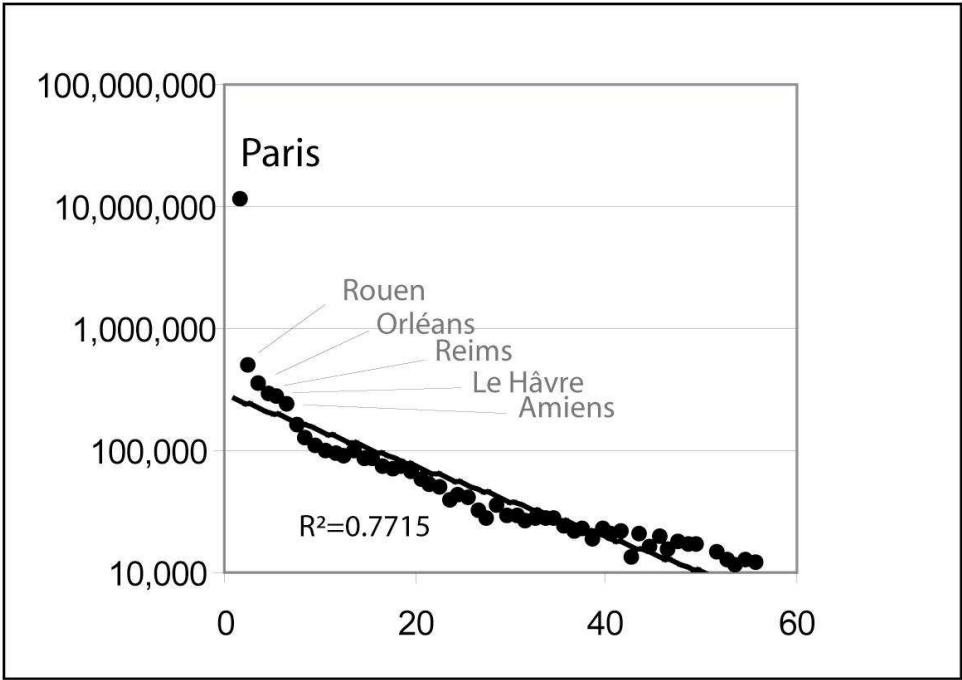


Figure 2

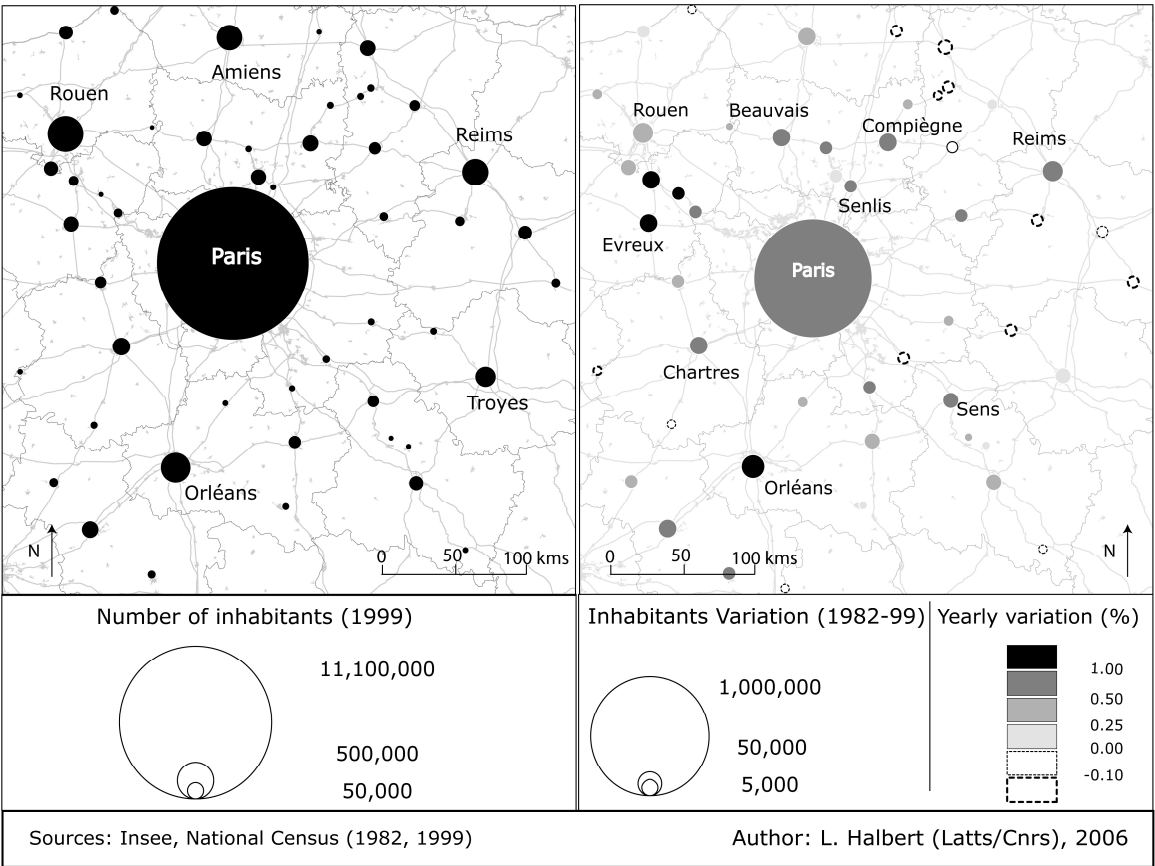


Figure 3

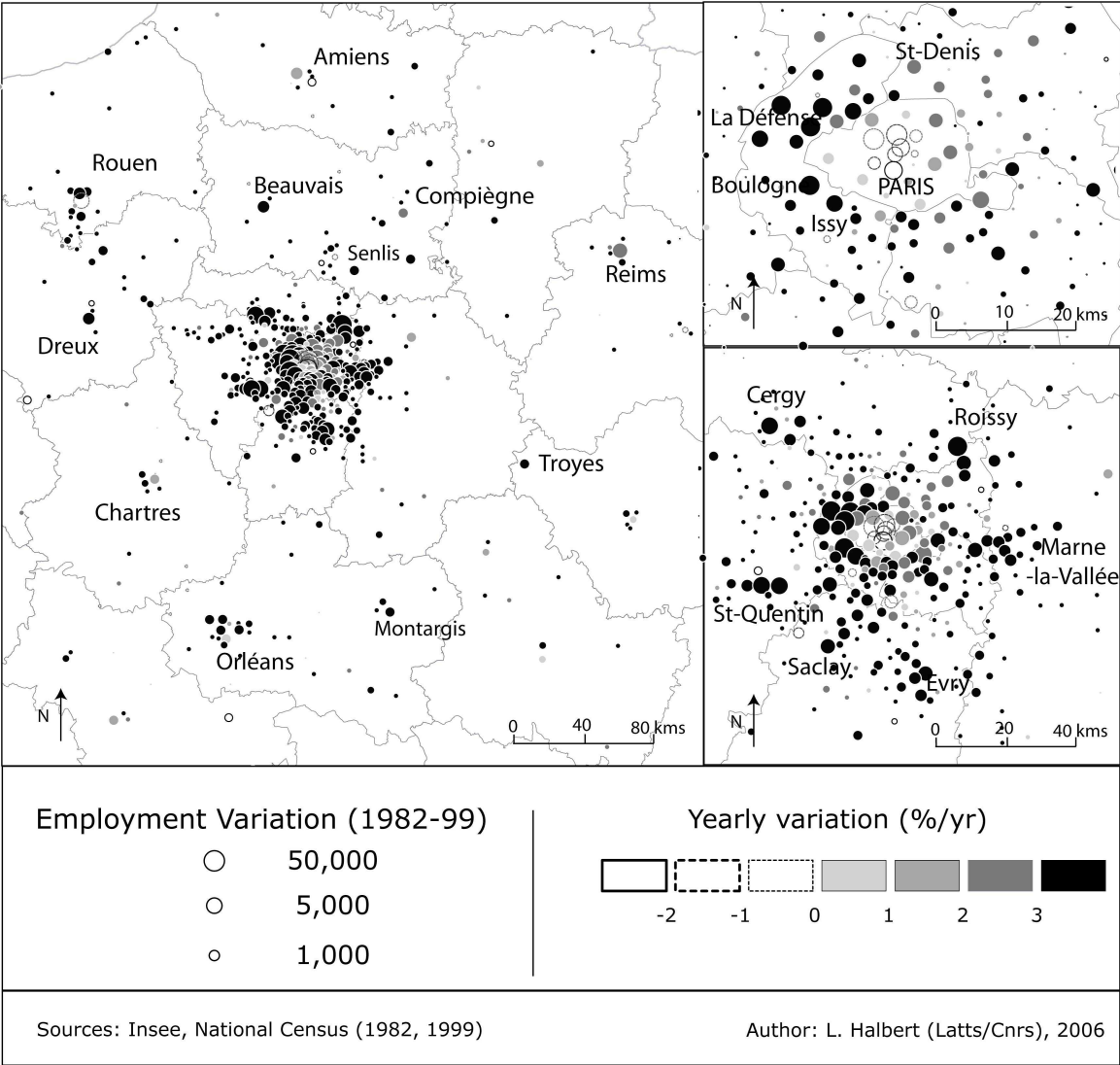


Figure 4

SECTORS	FUNCTIONS	SOCIAL Categories
Business Services	Abstract Production	High-skill workers
Real Estate	R&D, Design	
Telecoms	Management	
Banking & Insurance	Marketing	
IT		
Transport	Material Production	Intermediary Professions
Engineering, Architecture	Manufacturing	
Accounting, Legal Affairs	Logistics	Clearical staff
Advertising	Cleaning, Maintenance	
Industrial sectors		
Agri-business	Basic Services	Blue collars
Mining	Catering, Accomodation	
Heavy ind.	Retail	Artisans
Equipment goods ind.		
Crafts ind.	Authority	
Building ind.	Public Administration	
	Justice	
Services to households	Safety	
Education		
Health & Social Aid	Authority	
Culture & Leisure	Teaching	
Retail activities	Health & Social	
	Culture	
Domestic Services		

Figure 5

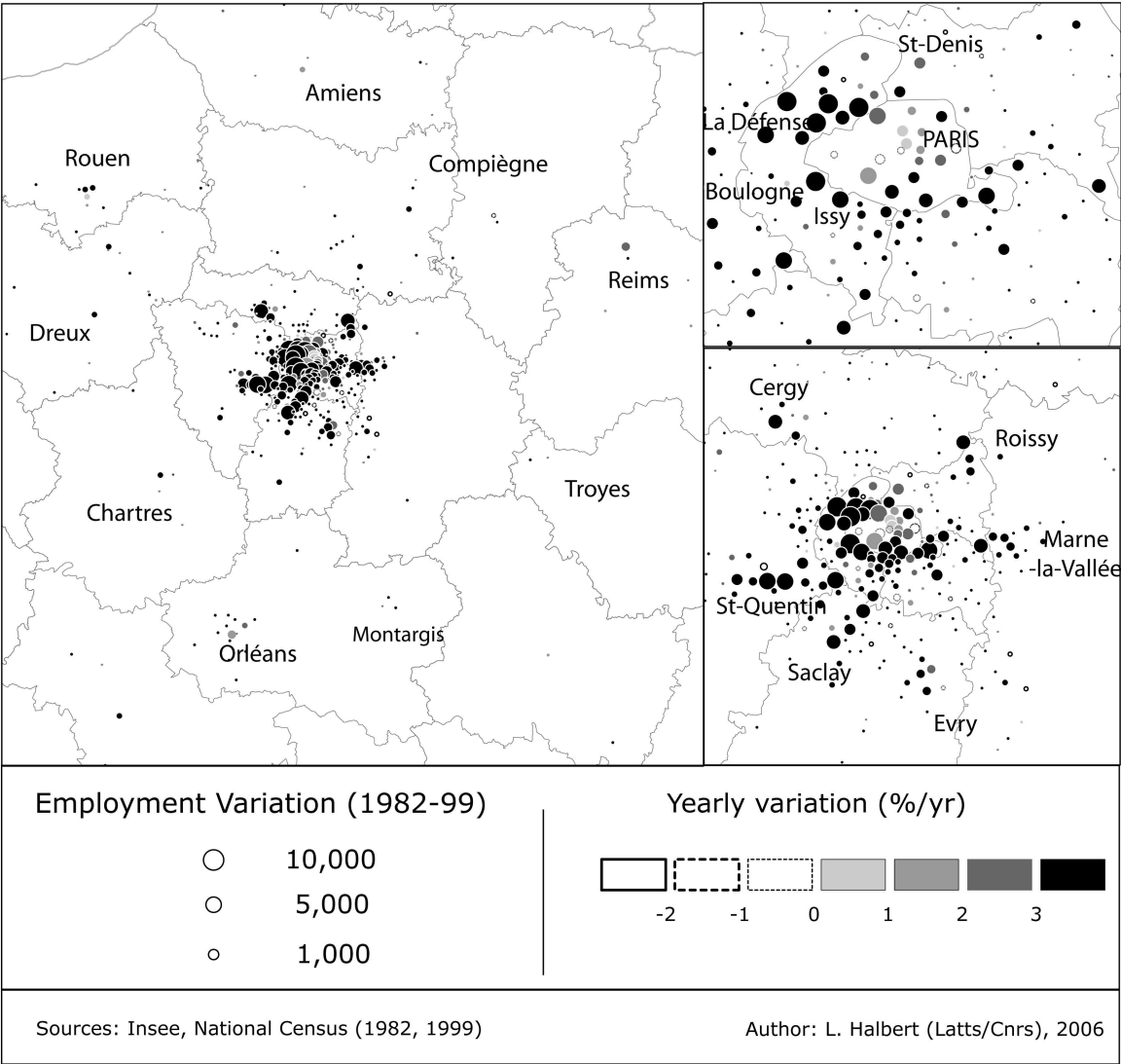
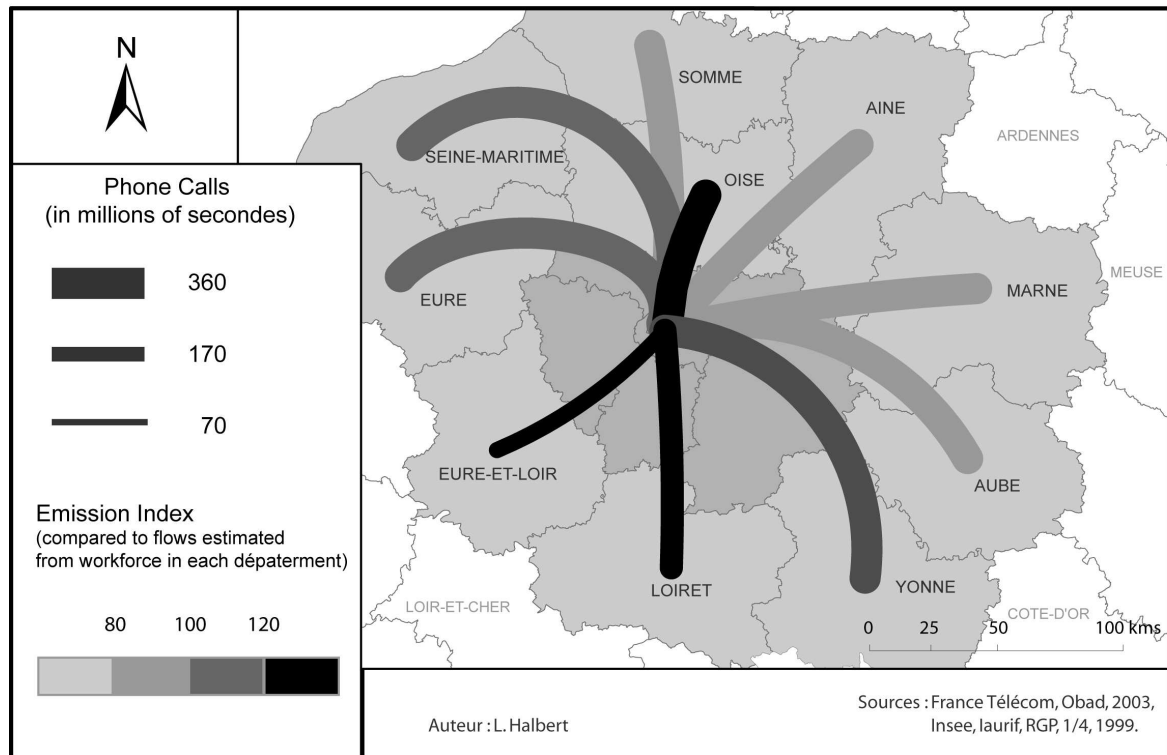


Figure 6



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ⁱ It is in direct reference to their article "Examining the CBD decline hypothesis: evidence from Montreal metropolitan area" that I titled this paper.

ⁱⁱ They are many non knowledge-related workers affected by globalisation (blue collar workers in the low-cost manufacturing regions, workers serving middle class tourists in low-cost destinations, migrants in charge of under-paid jobs in European cities, ethnic or family related import/export activities contributing to the circulation of low-technology goods). All these jobs are directly linked to the global economy and insure crucial financial flows (remittances for instance) that sustain economic development in many parts of the world. In this context, the 'knowledge economy' is but one dimension of globalisation.

ⁱⁱⁱ Term which we will use in this paper as well but in a critical approach for we will demonstrate how the Paris case study differs from the Polynet Polycentric Global MCR hypothesis.

^{iv} Note that employment data used in this paper do not give a direct evaluation of firms' location and moves for example from the Paris municipality to the rest of the FUA or to the enlarged functional region. What we observe is rather the result of job creation versus job destruction over a given period of time (1982-99) in the different parts of the region and for a given sector (i.e. business services), thus indicating potential deconcentration trends and relative differences in growth rates.

^v To exclude jobs servicing households and individuals which are not of our concern in this paper.

^{vi} Needless to mention this definition needs to be taken with extreme care for it is based on very strong postulates such as the central role credited to *some* forms of knowledge in the economy.

^{vii} This index is the ratio of the share of a given territory in the total number of phone calls divided by the share of this territory's workforce in the total national workforce. A value above 1.0 indicates that a territory receives more phone calls than one could expect if all workers were receiving the same number of phone calls in France.